Controlling Light settings in Java ME

This snippet shows how to control the lighting on devices through the `setLights()` method of the `DeviceControl` class.

Source file: ControllingLightMIDlet.java

```
import com.nokia.mid.ui.DeviceControl;

import javax.microedition.lcdui.Command;
import javax.microedition.lcdui.CommandListener;
import javax.microedition.lcdui.Display;
import javax.microedition.lcdui.Displayable;
import javax.microedition.lcdui.Form;

import javax.microedition.midlet.MIDlet;

/**
 *
 */
public class ControllingLightMIDlet extends MIDlet implements CommandListener {
    /**
     * Command for setting light
     */
    private Command controllingLightCommand;
    /**
     * exit midlet command
     */
    private Command exitCommand;

    private Form mainForm;

    /**
     * The ControllingLightMIDlet constructor.
     */
    public ControllingLightMIDlet() {
        //Empty implementation
    }

    /**
     * Performs an action assigned to the Mobile Device - MIDlet Started point.
     */
    public void startMIDlet() {
        switchDisplayable(getForm());
    }

    /**
     * Switches a current displayable in a display. The Display instance is
     * taken from getDisplay() method. This method is used by all actions
     * in the design for switching displayable.
     * @param nextDisplayable the Displayable to be set
     */
    public void switchDisplayable(Displayable nextDisplayable) {
        Display display = getDisplay();
        display.setCurrent(nextDisplayable);
    }

    /**
     * From CommandListener.
     * Called by a system to indicated that a command has been invoked on a
     * particular displayable.
     * @param command the Command that was invoked
     * @param displayable the Displayable where the command was invoked
     */
    public void commandAction(Command command, Displayable displayable) {
        if (displayable == mainForm) {
            if (command == exitCommand) {
                exitMIDlet();
            } else if(command == controllingLightCommand) {
                //up light level from 0 to 100
                for(int i = 0; i < 100; i++) {
                    // void setLights(int num, int level) is a static function of
                    //com.nokia.mid.ui.DeviceControl class that
                    //activates and deactivates the lights on the device.
                    //Parameter num indicates the number of the device light
                    //to control. Currently only one num parameter value is
                    //specified: num value 0 is used for controlling the
                    //screen backlight. Parameter level is a value between
                    //0-100, which indicates the brightness of the light.
                    //In many implementations, there are only two levels:
                    //on or off(Sony Ericsson). Value 0 indicates lights off
                    //for monochrome displays or the minimum brightness setting
                    //for color displays. All other level values (1-100) are
                    //used for turning the lights on, possibly with different
                    //brightness levels, depending on the value. A larger value
                    //always results in either the same brightness setting as a
                    //lower one, or a brighter setting. For many products,
                    //values 1-100 will just turn the lights on.
                    DeviceControl.setLights(0, i);
                    try {
                        Thread.sleep(30);
                    } catch (InterruptedException ex) {
                        ex.printStackTrace();
                    }
                }
            }
        }
    }
    /**
     * Returns an initiliazed instance of mainForm component.
     * @return the initialized component instance
     */
    public Form getForm() {
        if (mainForm == null) {
            mainForm = new Form("Lighting test!");

            exitCommand = new Command("Exit", Command.EXIT, 0);
```


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```
            mainForm.addCommand(exitCommand);
            controllingLightCommand = new Command("Light", Command.SCREEN, 0);
            mainForm.addCommand(controllingLightCommand);
            mainForm.setCommandListener(this);
        }
        return mainForm;
    }

    /**
     * Returns a display instance.
     * @return the display instance.
     */
    public Display getDisplay () {
        return Display.getDisplay(this);
    }

    /**
     * Exits MIDlet.
     */
    public void exitMIDlet() {
        switchDisplayable(null);
        destroyApp(true);
        notifyDestroyed();
    }

    /**
     * From MIDlet.
     * Called when MIDlet is started.
     * Checks whether the MIDlet have been already started and
     * initialize/starts or resumes the MIDlet.
     */
    public void startApp() {
        switchDisplayable(getForm());
    }

    /**
     * From MIDlet.
     * Called when MIDlet is paused.
     */
    public void pauseApp() {
        //Empty implementation
    }

    /**
     * From MIDlet.
     * Called to signal the MIDlet to terminate.
     * @param unconditional if true, then the MIDlet has to be unconditionally
     * terminated and all resources has to be released.
     */
    public void destroyApp(boolean unconditional) {
        //Empty implementation
    }
}
```

Postconditions

This MIDlet implements a simple example of controlling the light property.

Turns off the light then raises the light level from 1 to 100.

Supplementary material

You can download this application and source code here: Controlling Light Settings.zip

Related articles:

Flashing the backlight using Java ME

How to block the screen saver

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